PATENT
19036/36614A

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

In re Application of: Nobutaka Wakamiya)
)
Serial No.: Unassigned (Divisional of U.S. Serial No.: 09/600,950))
)
Filed: September 8, 2000)
)
Title: "Recombinant Human Mannan Binding Proteins and Producing Method of the Same")
)
Group Art Unit: 1645)
)
Examiner: S. Devi)

I hereby certify that this paper and the documents referred to herein as enclosed herewith are being deposited with the United States Postal Service in an envelope addressed to Commissioner for Patents, Washington, D.C. 20231 utilizing Express Mail Post Office to Addressee service under Mailing Label No. EV 027095758US on January 22, 2002.

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PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Please amend the above-identified patent application as follows before examination on the merits.

IN THE CLAIMS:

Please cancel claims 1-5.

Remarks

The Applicant requests entry of the foregoing amendments in the above-identified application.

Respectfully submitted,

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6300 Sears Tower
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Date: January 22, 2002

Mark H. Hopkins
Reg. No. 44,775

PATENT
19036/36614

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

In re Application of: Wakamiya, N. Serial No.: To Be Determined Filed: Herewith (US National Phase of PCT/JP98/03311, Filed 23 July 1998) Title: "Recombinant Human Mannan-Binding Proteins and Process for Producing the Same" Group Art Unit: To Be Determined Examiner: To Be Determined	CERTIFICATE OF MAILING BY EXPRESS MAIL "EXPRESS MAIL" mailing label No. EM099903882US Date of Deposit: July 24, 2000 I hereby certify that this paper and the documents referred to herein as enclosed herewith are being deposited with the United States Postal Service "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. §1.10 on the date indicated above and are addressed to Box PCT, Assistant Commissioner for Patents, Washington, D.C. 20231. Mark H. Hopkins

PRELIMINARY AMENDMENT "A"

BOX PCT
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Please amend the above-identified patent application as follows before calculating the filing fee and before examination on the merits.

Amendments

In the specification:

Please delete pages 1-18 of the original translation of the sequence listing filed herewith, and substitute therefor new pages 1-16 appended hereto, which constitute a substitute Sequence Listing.

In the claims:

Please amend claims 1, 3 and 5-11 and add new claims 12 and 13 as shown below:

1. (Amended) Recombinant Human Mannan-Binding Proteins (rhMBP) comprising a [which offers the specific peaks at the] molecular weight of 1,000-1,300 kDa when measured by [it is applied to] 280nm absorbance in Gel-Filtration Chromatography.

3. (Amended) Recombinant Human-Mannan-Binding Proteins (rhMBP) comprising a [which offers the specific peaks at the] molecular weight of 200-400 kDa when measured by [it is applied to] 280nm absorbance in Gel-Filtration Chromatography.

5. (Amended) Recombinant Human Mannan-Binding Proteins (rhMBP) comprising [which offers the specific peaks at the] molecular weights of 1,000-1,300 kDa and 200-400 kDa when measured by [it is applied to] 280nm absorbance in Gel-Filtration Chromatography.

6. (Amended) A method for producing Recombinant Human Mannan-Binding Proteins (rhMBP) comprising the [following] steps of:

(a) constructing [the] expression vector pNOW1-hMBP by inserting cDNA corresponding to 66bp-812bp of cDNA from native Human Mannan-Binding Proteins (native MBP) into plamid pNOW1;

(b) preparing transformants by introducing said expression vector pNOW1-hMBP into Chinese Hamster Ovary (CHO) cells which [are] lack [of] dihydrofolate reductase (dhfr[-]);

(c) obtaining neomycin resistant [resistance] cells by culturing said transformants in a culture medium containing neomycin;

(d) obtaining methotrexate (MTX) resistant [resistance] cells by culturing said neomycin resistant [resistance] cells in a culture medium containing MTX; and

(e) collecting Recombinant Human Mannan-Binding Proteins (rhMBP) from the obtained MTX resistance cells.

7. The method for producing Recombinant Human Mannan-Binding Proteins (rhMBP) according to Claim 6 wherein said Recombinant Human Mannan-Binding Proteins (rhMBP) comprises a [offers the specific peaks at the] molecular weight of 1,000-1,300 kDa when measured by [it is applied to] 280 nm absorbance in Gel-Filtration chromatography.

8. (Amended) The method for producing Recombinant Human Mannan-Binding Proteins (rhMBP) according to Claim 6 wherein said Recombinant Human Mannan-Binding Proteins (rhMBP) comprises a [offers the specific peaks at the] molecular weight of 200-400 kDa when measured by [it is applied to] 280nm absorbance in Gel-Filtration Chromatography.

9. (Amended) The method for producing Recombinant Human Mannan-Binding Proteins (rhMBP) according to Claim 6 wherein said Recombinant Human Mannan-Binding Proteins (rhMBP) comprise [offers the specific peaks at the] molecular weights of 1,000 - 1,300 kDa and 200-400 kDa when measured by [it is applied to] 280 nm absorbance in Gel-Filtration Chromatography.

10. (Amended) The method for producing Recombinant Human Mannan-Binding Proteins (rhMBP) according to [any of] Claim[s] 6 [-9] wherein said Recombinant Human Mannan-Binding Proteins (rhMBP) [have activities to] inhibit Hemagglutination by Influenza Viruses.

11. (Amended) Recombinant Human Mannan-Binding Proteins (rhMBP) which is obtainable by the method according to [any of] Claim[s] 6 [-10].

-- 12. A method for producing Recombinant Human Mannan-Binding Proteins (rhMBP) comprising the steps of:

(a) transforming a cell with an expression vector comprising a nucleotide sequence according to claim 1 that encodes native Human Mannan-Binding Proteins (native MBP);

(b) selecting a transformed cell and culturing the cell to produce Recombinant Human Mannan-Binding Protein encoded by the nucleotide sequence; and

(c) collecting Recombinant Human Mannan-Binding Proteins (rhMBP) from the cell culture.--

-- 13. A method for producing Recombinant Human Mannan-Binding Proteins (rhMBP) comprising the steps of:

(a) transforming a cell with an expression vector comprising a nucleotide sequence according to claim 3 that encodes native Human Mannan-Binding Proteins (native MBP);

(b) selecting a transformed cell and culturing the cell to produce Recombinant Human Mannan-Binding Protein encoded by the nucleotide sequence; and

(c) collecting Recombinant Human Mannan-Binding Proteins (rhMBP) from the cell culture.--

<u>New Abstract of the disclosure</u>:

Please amend the application by adding the attached Abstract of the Disclosure as page 58 of the translation of the application filed herewith, after the claims and prior to the drawing sheets.

Remarks

The sequences in the original and substitute Sequence Listings are identical. The substitute Sequence Listing has been prepared with the Patent Office's preferred PatentIn software and is accompanied by the requisite computer-readable copy and statement.

The amendments to the claims are merely intended to correct grammatical errors and minimize the filing fee and are not intended to change the scope of the claims. The addition

of claims 12 and 13 does not introduce new matter into the disclosure of the application. These claims are fully supported in Examples 1 and 2 of the specification as originally filed. The Applicant does not intend by these or any other amendments to abandon the subject matter of any claim as originally filed, and reserves the right to pursue such subject matter in this application or related applications, such as continuing applications.

The Abstract of the disclosure is identical to the abstract found on the cover of the published PCT application from which the present application is derived, and it finds support throughout the application.

Respectfully submitted,

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Date: July 24, 2000

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ABSTRACT

A production system for homogeneously producing recombinant human mannan-binding proteins (rhMBPs) being comparable in physiological activity to human mannan-binding protein (hMBP), in particular those showing a specific peak at molecular weight of from 1,000 to 1,300 kDa in the absorbance (280 nm) in gel chromatography.